IN THE CLAIMS:

In line 1, delete ~~Patent Claims:~~ and insert:

C L A I M S

What is claimed is:

Please cancel claim 16 and amend claims 1-15 and 17-20 to read as follows:

1. (Currently Amended) ~~A~~ In a method for manufacturing a ~~thermoplastic~~ plastic synthetic board comprising at least one smooth side edge, ~~through~~ said method ccmprising the steps of:

- mixing a thermoplastic synthetic in an extruder;
- pressing the synthetic through a wide-slot nozzle to form a flat synthetic web ~~(20)~~;
- cooling and calibrating of the synthetic web ~~(20)~~ on a calendar roll pair; and
- drawing off the synthetic web ~~(20)~~;

~~characterized in that~~ the improvement wherein the side edge ~~(21)~~ of the synthetic web ~~(20)~~ is heated to at least ~~the~~ a melting temperature of the synthetic following calibration, while ~~the~~ adjacent peripheral surface ~~zones (22, 23)~~ areas

are kept at a temperature below the softening temperature by cooling.

2. (Currently Amended) A method as set forth in claim 1, ~~characterized in that~~ wherein the thermoplastic synthetic is hard PVC.

3. (Currently Amended) A method as set forth in claim 1, wherein ~~or 2, characterized in that~~ the synthetic board is an integral foam board.

4. (Currently Amended) A method as set forth in ~~one of the claims 1 to 3, characterized in that~~ claim 1, wherein the longitudinal sides of the synthetic web ~~(20)~~ are trimmed prior to heating ~~of~~ the side edges.

5. (Currently Amended) A smoothing device ~~(10; 10')~~ for a side edge ~~(21, 24)~~ of a ~~thermoplastic~~ plastic synthetic board ~~(20)~~, with a guiding groove ~~(14; 14')~~ with at least one heating means ~~(15; 15')~~ in ~~the~~ a face area ~~(11; 11')~~, each with at least one cooling means ~~(16, 17; 16', 17')~~ at ~~the~~ side areas ~~(12, 13; 12', 13')~~ located on opposite sides,

where a thermoplastic synthetic board ~~(20)~~, which can be guided in a guiding groove ~~(14, 14')~~, rests with its cutting edge ~~(21, 24)~~ against the face zone ~~(11, 11')~~ and with its peripheral surface zones ~~(22, 23)~~ against the side areas ~~(12, 13; 12', 13')~~.

6. (Currently Amended) A smoothing device ~~(10)~~ as set forth in claim 5, ~~characterized in that~~ wherein at least one thermal insulating layer is provided between each of the heating and cooling means ~~(15, 16, 17)~~.

7. (Currently Amended) A smoothing device ~~(10)~~ as set forth in claim 6, ~~characterized in that~~ wherein at least one insulation zone formed by a groove or a borehole ~~(18.1, ..., 18.5)~~, which stretches across a major portion of the smoothing device ~~(10)~~, is located between a cross-sectional zone with a heating means ~~(15) located in it~~ and at least one cross-sectional zone ~~in which~~ with a cooling means ~~(16, 17) is located~~.

8. (Currently Amended) A smoothing device ~~(10')~~ as set forth in ~~one of the claims 5 to 7, characterized in that~~

claim 5, wherein the heating means is formed by at least one heating channel ~~(15')~~ in which a heated liquid is flowing.

9. (Currently Amended) A smoothing device ~~(10)~~ as set forth in ~~one of the claims 5 to 7, characterized in that~~ claim 5, wherein the heating means is formed by at least one electrical heating cartridge ~~(15)~~.

10. (Currently Amended) A smoothing device ~~(10; 10')~~ as set forth in ~~one of the claims 5 to 9, characterized in that~~ claim 5, wherein the heating means ~~(15; 15')~~ stretches across 0.4 to 0.6 times the length of the smoothing device.

11. (Currently Amended) A smoothing device ~~(10; 10')~~ as set forth in ~~one of the claims 5 to 10, characterized in that~~ claim 5, wherein the cooling means is created by at least one cooling channel ~~(16, 17; 16', 17'),~~ which has a cooling liquid flowing through it.

12. (Currently Amended) A smoothing device ~~(10; 10')~~ as set forth in claim 10, ~~characterized in that~~ wherein the cooling

channels ~~(16, 17; 16', 17')~~ are fed by a common cooling liquid lead line.

13. (Currently Amended) A smoothing device ~~(10; 10')~~ as set forth in ~~one of the claims 5 to 11, characterized in that~~ claim 5, wherein at least one of the side areas ~~(12, 13; 12', 13')~~ of the guiding groove ~~(14; 14')~~ exhibits an inlet slant ~~(14.1)~~ towards the outside of the device.

14. (Currently Amended) A smoothing device ~~(10)~~ as set forth in ~~one of the claims 5 to 12, characterized in that~~ claim 5, wherein the smoothing device is supported in a spring-loaded ~~fashion~~ manner and is movable perpendicular to the face area ~~(11)~~.

15. (Currently Amended) An edge machining system ~~(100)~~ for a side edge ~~(21, 24)~~ of a ~~thermoplastic~~ plastic synthetic board ~~(20)~~, comprising of at least one smoothing device ~~(10)~~ as set forth in ~~one of the claims 5 to 14~~ claim 5, and a guiding device, said system comprising, ~~at least~~ in combination:

- ~~one~~ a movable carriage for receiving at least one synthetic board ~~(20)~~;

- at least one securing means ~~(35)~~ for securing the synthetic board ~~(20)~~ on the carriage; and

- ~~one~~ a drive device (32, 33, 34) for moving the carriage in relation to the smoothing device (10).

16. (Canceled).

17. (Currently Amended) An edge machining system ~~(100, 100')~~ as set forth in claim 15, wherein ~~or 16, characterized in that~~ at least two smoothing devices ~~(10)~~ are provided, which are ~~located symmetrical~~ arranged symmetrically to one another with regard to the direction of movement ~~(2)~~.

18. (Currently Amended) An edge machining system as set forth in claim 15, ~~characterized by~~ further comprising a rotation device with which the synthetic board can be rotated relative to the carriage.

19. (Currently Amended) An edge machining system as set forth in claim 16, further comprising ~~or 17, characterized~~

~~by~~ a rotation device with which the smoothing device can be rotated relative to the synthetic board.

20. (Currently Amended) An edge machining system as set forth in ~~one of the claims 15 to 19, characterized in that~~ claim 15, wherein the distance of the smoothing device to a symmetric axis of the synthetic board is adjustable.